AMENDMENTS TO THE CLAIMS

1. (Previously presented) A computer-implemented method for organizing a sequence of video frames, comprising:

selecting one of the frames in the sequence as an initial frame in a first portion of a segment of the sequence;

adding further frames in the sequence, subsequent the initial frame, to the first portion, while a measure of similarity of each of the added frames to the frames already in the first portion is within a first predefined bound;

selecting one of the added frames in the first portion to be a representative frame for the segment;

generating a second portion of the segment by adding automatically, under control of computer program instructions and without intervention by a user, still further frames in the sequence, subsequent to the last frame in the first portion, to the second portion, while determining that the measure of similarity of each added frame to the representative frame is within a second predefined bound; and

determining the first and second portions together to constitute the segment that is represented by the representative frame.

2. (Original) A method according to claim 1, wherein selecting the frame as the initial frame comprises selecting the first frame subsequent to a final frame in a preceding segment.

3. (Original) A method according to claim 1, wherein adding the further frames comprises, for each of the added frames, computing at least one parameter indicative of a characteristic of the added frame, and wherein the measure of similarity comprises a distance measured between the parameters of the added frame and the frames already in the first portion.

4. (Original) A method according to claim 3, wherein computing the at least one parameter comprises computing a vector of parameters, and wherein the distance comprises a vector distance.

5. (Currently amended) A method according to claim 3, wherein adding the further frames comprises finding a bounding subset of the frames in the first portion, and adding the further frames to the first portion while the distance between each of the

added frames and the frames in the ~~representative set~~ bounding subset is within the predefined bound.

6. (Original) A method according to claim 5, wherein finding the bounding subset comprises selecting the subset so as to maximize a sum of the distances between all of the frames in the subset.

7. (Original) A method according to claim 6, wherein selecting the subset comprises determining the sum of the distances between one of the further frames added to the sequence and the frames in the bounding subset, and replacing one of the frames in the subset with the one of the further frames if replacing the one of the frames in the subset will increase the sum of the distances between all of the frames in the subset.

8. (Original) A method according to claim 1, wherein selecting the representative frame comprises selecting a final one of the frames added to the first portion to be the representative frame.

9. (Original) A method according to claim 8, wherein the frame in the sequence following the representative frame is outside the first predefined bound of the frames in the first portion.

10. (Original) A method according to claim 1, and comprising storing the sequence in an archive, and indexing the archive using the representative frame.

11. (Original) A method according to claim 1, and comprising compressing the sequence using the representative frame.

12. (Previously presented) Apparatus for organizing a sequence of video frames, comprising a video processor, which is arranged to select one of the frames in the sequence as an initial frame in a first portion of a segment of the sequence and to add further frames in the sequence, subsequent the initial frame, to the first portion, while a measure of similarity of each of the added frames to the frames already in the first portion is within a first predefined bound, and to select one of the added frames in the first portion to be a representative frame for the segment, and further arranged to generate a second portion of the segment by adding automatically, under control of program instructions and without intervention by a user, still further frames in the sequence, subsequent to the last frame in the first portion, to the second portion, while

determining that the measure of similarity of each added frame to the representative frame is within a second predefined bound, so as to determine the first and second portions together to constitute the segment that is represented by the representative frame.

13. (Original) Apparatus according to claim 12, wherein the initial frame comprises the first frame subsequent to a final frame in a preceding segment of the sequence.

14. (Original) Apparatus according to claim 12, wherein the processor is arranged to compute at least one parameter indicative of a characteristic of each of the added frame, and wherein the measure of similarity comprises a distance measured between the parameters of the added frame and the frames already in the first portion.

15. (Original) Apparatus according to claim 14, wherein the at least one parameter comprises a vector of parameters, and wherein the distance comprises a vector distance.

16. (Currently amended) Apparatus according to claim 14, wherein the processor is arranged to find a bounding subset of the frames in the first portion, and to add the further frames to the first portion while the distance between each of the added frames and the frames in the ~~representative set~~ bounding subset is within the predefined bound.

17. (Original) Apparatus according to claim 16, wherein the bounding subset comprises a subset selected so as to maximize a sum of the distances between all of the frames in the subset.

18. (Original) Apparatus according to claim 17, wherein the processor is arranged to determine the sum of the distances between one of the further frames added to the sequence and the frames in the bounding subset, and to replace one of the frames in the subset with the one of the further frames if replacing the one of the frames in the subset will increase the sum of the distances between all of the frames in the subset.

19. (Original) Apparatus according to claim 12, wherein the representative frame comprises the final one of the frames added to the first portion of the segment.

20. (Original) Apparatus according to claim 19, wherein the frame in the sequence following the representative frame is outside the first predefined bound of the frames in the first portion.

21. (Original) Apparatus according to claim 12, and comprising a storage device, wherein the processor is arranged to store the sequence in the storage device, and to create an index to the sequence using the representative frame.

22. (Original) Apparatus according to claim 12, wherein the processor is arranged to compress the sequence using the representative frame.

23. (Previously presented) A computer software product for organizing a sequence of video frames, comprising a computer-readable medium in which program instructions are stored, which instructions, when read by a computer, cause the computer to select one of the frames in the sequence as an initial frame in a first portion of a segment of the sequence, to add further frames in the sequence, subsequent the initial frame, to the first portion, while a measure of similarity of each of the added frames to the frames already in the first portion is within a first predefined bound, to select one of the added frames in the first portion to be a representative frame for the segment, to generate a second portion of the segment by adding automatically, under control of the program instructions and without intervention by a user, still further frames in the sequence, subsequent to the last frame in the first portion, to the second portion, while determining that the measure of similarity of each added frame to the representative frame is within a second predefined bound; and to determine the first and second portions together to constitute the segment that is represented by the representative frame.

24. (Previously presented) A method according to claim 5, wherein the bounding subset comprises at least three of the frames in the first portion.

25. (Previously presented) A computer-implemented method for organizing a sequence of video frames, comprising:

generating a first portion of a segment of the sequence by:

for each frame beginning from an initial frame in the sequence, computing at least one parameter indicative of a characteristic of the frame;

determining distances between the frames in the sequence responsively to differences in the at least one parameter among the frames; and

finding, responsively to the distances, a bounding subset comprising at least three of the frames in the sequence, such that the first portion comprises

the frames in the sequence that are bounded by the at least three of the frames in the bounding subset;

selecting one of the frames in the first portion to be a representative frame for the segment; and

generating a second portion of the segment by adding to the segment further frames in the sequence subsequent to the first portion while determining that the respective distances between the added further frames and the representative frame are within a predefined bound.

26. (Previously presented) A method according to claim 25, wherein finding the bounding subset comprises selecting the bounding subset so as to maximize a sum of the distances between all of the frames in the subset, while each of the distances is no greater than a predetermined maximum.

27. (Previously presented) A method according to claim 26, wherein selecting the bounding subset comprises:

choosing an initial bounding subset;

determining the sum of the distances between one of the further frames added to the sequence and the frames in the initial bounding subset; and

replacing one of the frames in the initial bounding subset with the one of the further frames if replacing the one of the frames will increase the sum of the distances between all of the frames in the subset.

28. (Previously presented) A method according to claim 26, wherein selecting the one of the frames to be the representative frame comprises, upon determining that a distance between a given frame in the sequence and at least one of the frames in the bounding subset is greater than the predetermined maximum, terminating generation of the first portion and choosing as the representative frame the one of the frames immediately preceding the given frame in the sequence, and

wherein generating the second portion comprises adding the given frame to the second portion.